Title (en)
RATE-OF-TURN SENSOR

Title (de)
DREHRATENSENSOR

Title (fr)
CAPTEUR DE VITESSE DE ROTATION

Publication
EP 1910775 A1 20080416 (DE)

Application
EP 06763698 A 20060614

Priority
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Abstract (en)
[origin: WO2007012520A1] A method for operation of and simultaneous analysis of a rate-of-turn sensor, comprising an oscillator element and a Coriolis element arranged on the oscillation element is disclosed, comprising the following method steps: generation of a digital operating signal with an excitation frequency corresponding to the resonant frequency of the oscillator element, digital to analogue conversion of the digital operating signal and operation of the oscillator element with the analogue operating signal, recording a Coriolis speed of the Coriolis element occurring about a normal to both oscillation axes due to the rotation of the rate-of-turn sensor with generation of an analogue Coriolis signal proportional to the Coriolis speed, analogue-to-digital conversion of the analogue Coriolis signal, phase-sensitive multiplication of the digital Coriolis signal with the digital operating signal to form an intermediate signal, generation of a control signal proportional to the rate of turn of the rate-of-turn sensor from the intermediate signal, multiplication of the control signal with the digital operating signal to give a digital compensation signal in phase with the digital operating signal, digital-to-analogue conversion of the digital compensation signal to give an analogue compensation signal in phase with the analogue operating signal and subjecting the Coriolis element to the analogue compensation signal and output of the control signal.

IPC 8 full level
G01C 19/56 (2012.01)

CPC (source: EP US)
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